Oecologia

Derived from *"Zeitschrift für Morphologie und Ökologie der Tiere", Oecologia* was founded in 1968, volumes (1968–1982), and edited by H. Remmert. As of volume 53 (1982) the journal has been edited by both H. Remmert and E.-D. Schulze. As of volume 81 (1989) the journal has been edited by J.R. Ehleringer, Salt Lake City; C.H. Peterson, Morehead City; H. Remmert, Marburg; E.-D. Schulze, Bayreuth. As of volume 83 (1990) the journal has been edited by J.R. Ehleringer, Salt Lake City; C.H. Peterson, Morehead City; M. Schaefer, Göttingen; E.-D. Schulze, Bayreuth. As of volume 110 (1997) the journal has been edited by J.R. Ehleringer, Salt Lake City; M. Schaefer, Göttingen; E.-D. Schulze, Bayreuth; D.R. Strong, Bodega Bay. As of volume 115 (1998) the journal has been edited by J.R. Ehleringer, Salt Lake City; M. Schaefer, Göttingen; C. Körner, Basel; D.R. Strong, Bodega Bay. As of volume 126 (2001) the journal has been edited by J.R. Ehleringer, Salt Lake City; C. Körner, Basel; C.W. Osenberg, Gainesville; M. Schaefer, Göttingen. As of volume 129 (2001) the journal has been edited by R. Brandl, Marburg; J.R. Ehleringer, Salt Lake City; C. Körner, Basel; C.W. Osenberg, Gainesville.

Contents of Volume 136 · 2003

Aanderud ZT, Bledsoe CS, Richards JH: Contribution of relative growth rate to root foraging by annual and perennial grasses from California oak woodlands 424
Ackerman JL, Bellwood DR: The contribution of small individuals to density – body size relationships 137
Altwegg R: Multistage density dependence in an amphibian 46
Andow DA, Olson DM: Inheritance of host finding ability on structurally complex surfaces 324
Anthony KRN → Leuzinger S
Armitage KB → Oli MK
Ashcroft C → Ellis CJ

Babbitt KJ → Baber MJ
Baber MJ, Babbitt KJ: The relative impacts of native and introduced predatory fish on a temporary wetland tadpole assemblage 289
Bartumeus F → Guisande C
Bellwood DR → Ackerman JL
Berry JA → Still CJ
Bertness MD → Ewanchuk PJ
Blaha MA → Boyer AG
Bledsoe CS → Aanderud ZT
Boevé J-L, Wäckers FL: Gustatory perception and metabolic utilization of sugars by *Myrmica rubra* ant workers 508
Borges RM, Gowda V, Zacharias M: Butterfly pollination and high-contrast visual signals in a low-density distylous plant 571
Bowen TJ → Ewers FW
Boyer AG, Swearingen RE, Blaha MA, Fortson CT, Gremillion SK, Osborn KA, Moran MD: Seasonal variation in top-down and bottom-up processes in a grassland arthropod community 309
Brody AK → Freeman RS
Brotons L → Siffczyk C
Brown WD → Liautard C

Campbell LM → Hart RC
Carroll AL, Quiring DT: Herbivory modifies conifer phenology: induced amelioration by a specialist folivore 88
Castells E, Peñuelas J: Is there a feedback between N availability in siliceous and calcareous soils and *Cistus albidus* leaf chemical composition? 183
Casula P, Nichols JD: Temporal variability of local abundance, sex ratio and activity in the Sardinian chalk hill blue butterfly 374
Catalan J → Guisande C
Chase JM: Community assembly: when should history matter? 489
Chauhan AK → Thakar JD
Christian KA, Webb JK, Schultz TJ: Energetics of bluetongue lizards (*Tiliqua scincoides*) in a seasonal tropical environment 515
Clauss M, Frey R, Kiefer B, Lechner-Doll M, Loehlein W, Polster C, Rössner GE, Streich WJ: The maximum attainable body size of herbivorous mammals: morphophysiological constraints on foregut, and adaptations of hindgut fermenters 14
Connolly RM → Melville AJ
Cordero Rivera A → Santolamazza-Carbone S
Crittenden PD → Ellis CJ

Darchambeau F, Faerøvig PJ, Hessen DO: How *Daphnia* copes with excess carbon in its food 336
Davis SD → Ewers FW
Deal MS, Hay ME, Wilson D, Fenical W: Galactolipids rather than phlorotannins as herbivore deterrents in the brown seaweed *Fucus vesiculosus* 107
Dietrich B, Wehner R: Sympatry and allopatry in two desert ant sister species: how do *Cataglyphis bicolor* and *C. savignyi* coexist? 63
Dingle C → Hobson KA
Downes BJ → Reich P
Dudycha JL, Roach DA: Pathogen frequency in an age-structured population of *Plantago lanceolata* 141

Ehleringer JR → Fessenden JE
Ehleringer JR → Schwinning S
Ellis CJ, Crittenden PD, Scrimgeour CM, Ashcroft C: The natural abundance of ^{15}N in mat-forming lichens 115
Engelbrecht BMJ, Kursar TA: Comparative drought-resistance of seedlings of 28 species of co-occurring tropical woody plants 383
Erikstad KE → Hanssen SA
Escudero A → Silla F
Ewanchuk PJ, Bertness MD: Recovery of a northern New England salt marsh plant community from winter icing 616
Ewers FW, Lawson MC, Bowen TJ, Davis SD: Freeze/thaw stress in *Ceanothus* of southern California chaparral 213

Faerøvig PJ → Darchambeau F
February EC → Swanborough PW
Fenical W → Deal MS
Fessenden JE, Ehleringer JR: Temporal variation in $\delta^{13}C$ of ecosystem respiration in the Pacific Northwest: links to moisture stress 129
Folstad I → Hanssen SA
Forsyth SA: Density-dependent seed set in the Haleakala silversword: evidence for an Allee effect 551
Fortson CT → Boyer AG
Freeman RS, Brody AK, Neefus CD: Flowering phenology and compensation for herbivory in *Ipomopsis aggregata* 394
Frey R → Clauss M

Geddes P, Trexler JC: Uncoupling of omnivore-mediated positive and negative effects on periphyton mats 585
Gibb H: Dominant meat ants affect only their specialist predator in an epigaeic arthropod community 609
Gowda V → Borges RM
Gregg JW → Phillips DL
Gremillion SK → Boyer AG
Guisande C, Bartumeus F, Ventura M, Catalan J: Role of food partitioning in

structuring the zooplankton community in mountain lakes 627
Gunderson CA → Norby RJ

Han M-S → Kim BH
Hanssen SA, Folstad I, Erikstad KE: Reduced immunocompetence and cost of reproduction in common eiders 457
Hart RC, Campbell LM, Hecky RE: Stable isotope analyses and demographic responses counter prospects of planktivory by *Caridina* (Decapoda: Atyidae) in Lake Victoria 270
Hasselquist D → Ilmonen P
Hasselquist D → Råberg L
Haukioja E: Putting the insect into the birch-insect interaction 161
Hay ME → Deal MS
Hay ME → Taylor RB
Hecky RE → Hart RC
Helliker BR → Still CJ
Helms KR → Liautard C
Hernandez P → Herrera LG
Herrera LG, Hobson KA, Rodríguez M, Hernandez P: Trophic partitioning in tropical rain forest birds: insights from stable isotope analysis 439
Hessen DO → Darchambeau F
Hobson KA, Wassenaar LI, Milá B, Lovette I, Dingle C, Smith TB: Stable isotopes as indicators of altitudinal distributions and movements in an Ecuadorean hummingbird community 302
Hobson KA → Herrera LG
Holand → Weladji RB
Hunter MD → Madritch MD

Ilmonen P, Hasselquist D, Langefors, Wiehn J: Stress, immunocompetence and leukocyte profiles of pied flycatchers in relation to brood size manipulation 148

Janssen A → Nomikou M
Jawdy SS → Norby RJ
Johnsen A, Lifjeld JT: Ecological constraints on extra-pair paternity in the bluethroat 476
Julkunen-Tiitto R → Tikkanen O-P

Kangas K → Siffczyk C
Karolewski P → Oleksyn J
Keller L → Liautard C
Kiefer B → Clauss M
Kim BH, Han M-S, Takamura N: Effects of fish introduction on the length of the tail of cryptomonads in mesocosm experiments 73
Kirshenbaum S → Lower SS
Kubanek J → Taylor RB
Kunte K → Thakar JD
Kursar TA → Engelbrecht BMJ
Kursar TA → Lopez OR

Lamont BB → Swanborough PW
Langefors → Ilmonen P
Lawson MC → Ewers FW
Lechner-Doll M → Clauss M
Leuzinger S, Anthony KRN, Willis BL: Reproductive energy investment in corals: scaling with module size 524
Liautard C, Brown WD, Helms KR, Keller L: Temporal and spatial variations of gyne production in the ant *Formica exsecta* 558
Lifjeld JT → Johnsen A
Lindquist N → Taylor RB
Loehlein W → Clauss M
Lopez OR, Kursar TA: Does flood tolerance explain tree species distribution in tropical seasonally flooded habitats? 193
Lovette I → Hobson KA
Lower SS, Kirshenbaum S, Orians CM: Preference and performance of a willow-feeding leaf beetle: soil nutrient and flooding effects on host quality 402

Madritch MD, Hunter MD: Intraspecific litter diversity and nitrogen deposition affect nutrient dynamics and soil respiration 124
Marr DL, Pellmyr O: Effect of pollinator-inflicted ovule damage on floral abscission in the yucca-yucca moth mutualism: the role of mechanical and chemical factors 236
Mastronicola TA → Tyler AC
McCormick MI: Consumption of coral propagules after mass spawning enhances larval quality of damselfish through maternal effects 37
McGlathery KJ → Tyler AC
McIntosh AR → Nyström P
Melville AJ, Connolly RM: Spatial analysis of stable isotope data to determine primary sources of nutrition for fish 499
Milá B → Hobson KA
Moran MD → Boyer AG
Morris DW: Toward an ecological synthesis: a case for habitat selection 1
Morrison LW: Plant species persistence and turnover on small Bahamian islands 51

Nakamura M, Ohgushi T: Positive and negative effects of leaf shelters on herbivorous insects: linking multiple herbivore species on a willow 445
Neefus CD → Freeman RS
Nichols JD → Casula P
Nomikou M, Janssen A, Sabelis MW: Herbivore host plant selection: whitefly learns to avoid host plants that harbour predators of her offspring 484
Norby RJ, Sholtis JD, Gunderson CA, Jawdy SS: Leaf dynamics of a deciduous forest canopy: no response to elevated CO_2 574
Nyström P, McIntosh AR: Are impacts of an exotic predator on a stream food web influenced by disturbance history? 279
Nyström P, McIntosh AR, Winterbourn MJ: Top-down and bottom-up processes in grassland and forested streams 596

Ogle K: Implications of interveinal distance for quantum yield in C_4 grasses: a modeling and meta-analysis 532
Ohgushi T → Nakamura M
Oleksyn J, Reich PB, Zytkowiak R, Karolewski P, Tjoelker MG: Nutrient conservation increases with latitude of origin in European *Pinus sylvestris* populations 220
Oli MK, Armitage KB: Sociality and individual fitness in yellow-bellied marmots: insights from a long-term study (1962–2001) 543
Olson DM → Andow DA
Orell M → Siffczyk C
Orians CM → Lower SS
Osborn KA → Boyer AG

Pellmyr O → Marr DL
Peñuelas J → Castells E
Peterson MS → Woodley CM
Phillips DL, Gregg JW: Source partitioning using stable isotopes: coping with too many sources 261
Polster C → Clauss M
Ponsard S → Vanderklift MA
Pugnaire FI → Tirado R

Quiring DT → Carroll AL

Råberg L, Stjernman M, Hasselquist D: Immune responsiveness in adult blue tits: heritability and effects of nutritional status during ontogeny 360
Reich P, Downes BJ: Experimental evidence for physical cues involved in oviposition site selection of lotic hydrobiosid caddis flies 465
Reich PB → Oleksyn J
Ribas-Carbo M → Still CJ
Richards JH → Aanderud ZT
Roach DA → Dudycha JL
Rodríguez M → Herrera LG
Rössner GE → Clauss M
Russo SE: Responses of dispersal agents to tree and fruit traits in *Virola calophylla* (Myristicaceae): implications for selection 80

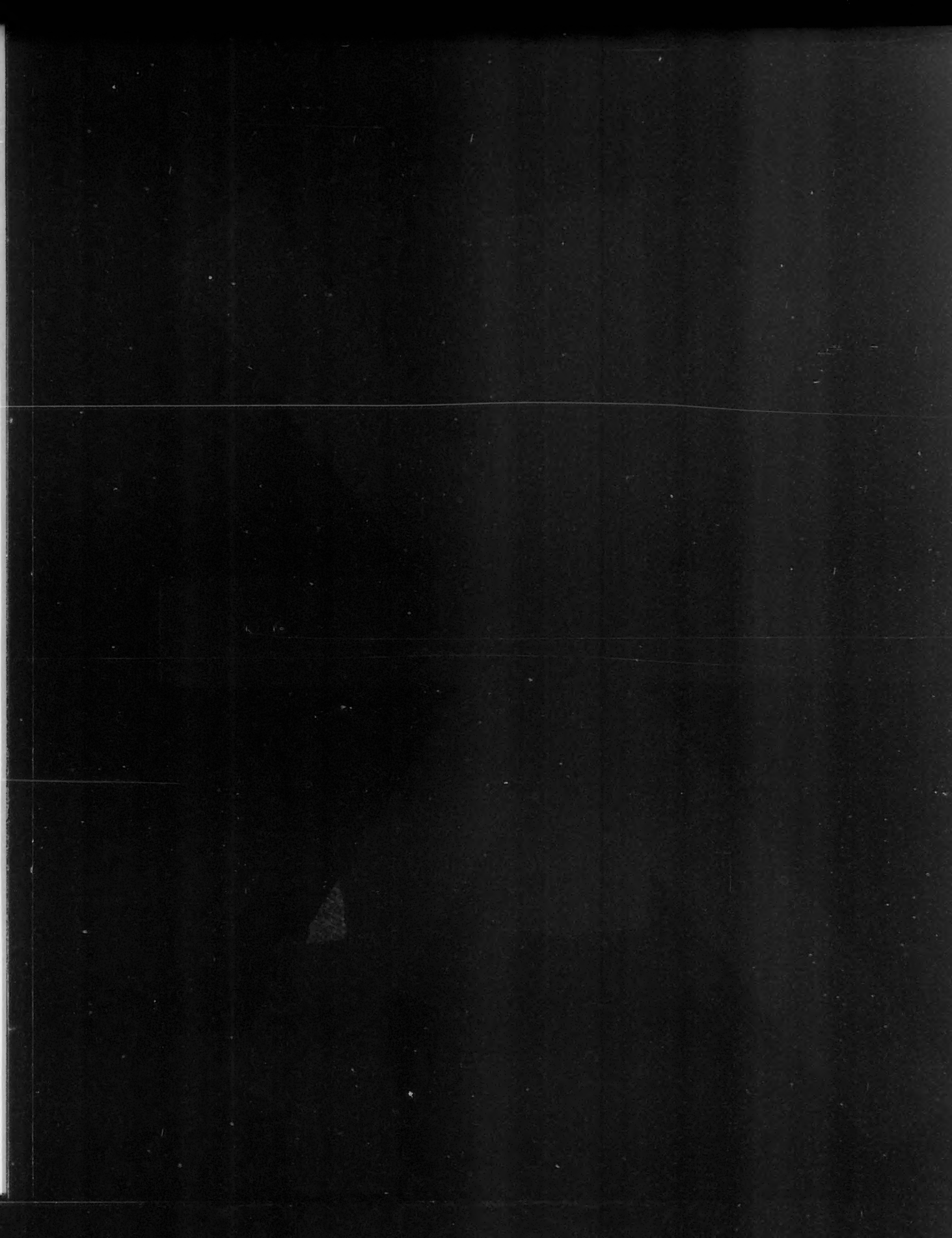
Sabelis MW → Nomikou M
Sabo JL: Hot rocks or no hot rocks: overnight retreat availability and selection by a diurnal lizard 329
Santolamazza-Carbone S, Cordero Rivera A: Superparasitism and sex ratio adjustment in a wasp parasitoid: results at variance with Local Mate Competition? 365
Schultz TJ → Christian KA
Schwinning S, Starr BI, Ehleringer JR: Dominant cold desert plants do not partition warm season precipitation by event size 252
Scrimgeour CM → Ellis CJ
Shine R: Effects of pregnancy on locomotor performance: an experimental study on lizards 450
Sholtis JD → Norby RJ
Siffczyk C, Brotons L, Kangas K, Orell M: Home range size of willow tits: a response to winter habitat loss 635
Silla F, Escudero A: Uptake, demand and internal cycling of nitrogen in saplings of Mediterranean *Quercus* species 28
Smith TB → Hobson KA
Starr BI → Schwinning S
Still CJ, Berry JA, Ribas-Carbo M, Helliker BR: The contribution of C_3 and C_4 plants to the carbon cycle of a tallgrass prairie: an isotopic approach 347
Stjernman M → Råberg L

Streich WJ → Clauss M
Sullivan JJ: Density-dependent shoot-borer herbivory increases the age of first reproduction and mortality of neotropical tree saplings 96
Swanborough PW, Lamont BB, February EC: $\delta^{13}C$ and water-use efficiency in Australian grasstrees and South African conifers over the last century 205
Swearingen RE → Boyer AG

Takamura N → Kim BH
Taylor RB, Lindquist N, Kubanek J, Hay ME: Intraspecific variation in palatability and defensive chemistry of brown seaweeds: effects on herbivore fitness 412
Thakar JD, Kunte K, Chauhan AK, Watve AV, Watve MG: Nectarless flowers: ecological correlates and evolutionary stability 565
Tikkanen O-P, Julkunen-Tiitto R: Phenological variation as protection against defoliating insects: the case of *Quercus robur* and *Operophtera brumata* 244
Tirado R, Pugnaire FI: Shrub spatial aggregation and consequences for reproductive success 296
Tjoelker MG → Oleksyn J
Trexler JC → Geddes P
Tyler AC, Mastronicola TA, McGlathery KJ: Nitrogen fixation and nitrogen limitation of primary production along a natural marsh chronosequence 431

Vanderklift MA, Ponsard S: Sources of variation in consumer-diet $\delta^{15}N$ enrichment: a meta-analysis 169
Ventura M → Guisande C

Wäckers FL → Boevé J-L
Wassenaar LI → Hobson KA
Watve AV → Thakar JD
Watve MG → Thakar JD
Webb JK → Christian KA
Wehner R → Dietrich B
Weladji RB, Holand : Global climate change and reindeer: effects of winter weather on the autumn weight and growth of calves 317
Wiehn J → Ilmonen P
Willis BL → Leuzinger S
Wilson D → Deal MS
Winterbourn MJ → Nyström P
Woodley CM, Peterson MS: Measuring responses to simulated predation threat using behavioral and physiological metrics: the role of aquatic vegetation 155

Zacharias M → Borges RM
Zytkowiak R → Oleksyn J

Indexed in/abstracted by
BIOSIS, Zoological Record
Current Contents